REMARKS

The present Amendment amends claims 1-5 and 9-14 and leaves claims 6-8 unchanged. Therefore, the present application has pending claims 1-14.

Claims 1-14 stand rejected under under 35 USC §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regards as their invention. Various amendments were made throughout claims 1-14 to bring them into conformity with the requirements of 35 USC §112, second paragraph. Therefore, this rejection with respect to claims 1-14 is overcome and should be withdrawn.

Specifically, amendments were made throughout claims 1-14 to overcome the objections noted by the Examiner in the Office Action.

Claims 1-3 and 7-14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Krishnamurthi (U.S. Patent No. 7,164,698) in view of Paatela (U.S. Patent No. 6,944,168); and claims 4-6 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Krishnamurthi in view of Paatela and further in view of Yoon (U.S. Patent No. 7,006,504). This rejection is traversed for the following reasons. Applicants submit that the features of the present invention as now recited in claims 1-14 are not taught or suggested by Krishnamurthi, Paatela and Yoon whether taken individually or in combination with each other as suggested by the Examiner. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw these rejections.

When the claims are reconsidered in light of the amendments made to address the informalities noted by the Examiner, the patentability of the

present invention over the cited references is apparent. Thus, for the reasons expressed below, it is respectfully submitted that the rejections set forth in the Office Action should be withdrawn.

In the Office Action, the Examiner relies on the Krishnamurthi and Paatela references as the basis for the rejection of claims 1-3 and 7-14. under 35 U.S.C. §103. This rejection is traversed for the following reasons.

Krishnamurthi discloses an example of a configuration of a line interface where the data from a high-speed input line is processed using low speed parallel processing. Krishnamurthi does not teach or suggest module configurations which have different functions that are dedicated to functional processing. Moreover, Krishnamurthi does not teach or suggest a processing method for utilizing those modules (for example, method of transmitting data packets in a device).

Paatela discloses line interface processing for analyzing the contents of multi-protocol packets inputted to the line interface, for performing tagging for traffic processing for searching a destination of an output line and for quality of service. The processing is performed using only the line interface. Paatela does not teach or suggest module configurations which have different functions that are dedicated to functional processing. Moreover, Paatela does not teach or suggest a processing method for utilizing those modules (for example, method of transmitting data packets in a device).

The present invention, as described in claim 1, distinguishes from the cited references in that at least one functional processor module is used to perform a function different from a function common to the line interfaces. Claim 1 also requires that the line interface impart forwarding information,

which is necessary for transmitting incoming packets to the functional processor module according to a desired function, and transmits the incoming packets to the desired functional processor through a switch based on the forwarding information. These features are not disclosed or suggested by the references cited by the Examiner.

With respect to claim 2, the incoming packets can be successively processed, if necessary, by using a plurality of functional processor modules. The incoming packets are each provided with a header (forwarding information) in each of a plurality of devices for transmission of packets among the plurality of functional processor modules. These features are not disclosed in the cited references.

In the Paatela, the incoming packets for control and the incoming packets for data processing are distinguished from each other. This approach is different from the use of a plurality of functional processing modules as required by claim 2.

With respect to claim 3, the incoming packets are each provided with a header in each of the plurality of devices for transmission of packets among the plurality of functional processor modules and includes forwarding information for designating the output line interface. These features are not disclosed in the cited references. Paatela merely discloses an example in which the forwarding information for designating the output line interface is provided to the incoming packets (which is the typical example for a communication device).

With respect to claims 7 and 8, Paatela discloses that packet processing is performed by the line interface and then the packets are

transmitted to the switch. In the present invention as described in claims 7 and 8, functional processing is not performed by the line interface but rather by functional processing associated with the switch. This approach is distinctly different than Paatela.

With respect to claims 9 and 10, the determination of the output line and the imparting of the forwarding information necessary for transmission of packets to the output line are performed by a functional processing unit and not by the line interface. However, in Paatela, the determination of the output line and the imparting of the forwarding information are performed by the line interface.

With respect to claim 11, the determination of the output line and the imparting of the forwarding information necessary for transmitting of packets to the output line, can be performed selectively by the line interface or the functional processing unit (according to the protocol). In Paatela, the determination of the output line and the imparting of the forwarding information are performed by the line interface. In addition, Paatela discloses an example in which the incoming packets are each imparted with a plurality of headers (UDP, IPv4, and the like). However, the headers do not correspond to the forwarding modules of the present invention and thus, are distinct from the Paatela system.

Claims 12, 13, and 14 recite a plurality of functional processing units having the same function to perform load balancing. This feature is not taught or suggested in any of the references cited by the Examiner.

In the Office Action, the Examiner rejected claims 4-6 under 35 U.S.C. §103(a) as being unpatentable over the Krishnamurthi and Paatela as applied

to claims 2 and 3 and further in view of the Yoon. This rejection is traversed for the following reasons.

Yoon discloses a method of establishing or terminating a virtual channel (VC) merging connection. Yoon does not disclose the concept of a packet transmission in a device for achieving functional processing as required by claims 4, 5 and 6. More specifically, Yoon does not disclose a configuration in which the used forwarding information (header information) is deleted every time the packets are transmitted in the device. Thus, the present invention, as described by claims 4-6, is patentably distinct from the system disclosed by the Yoon.

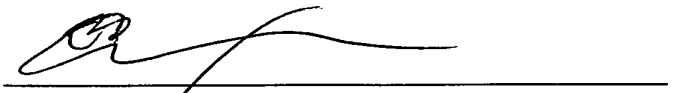
The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references utilized in the rejection of claims 1-14.

In view of the foregoing amendments and remarks, Applicants submit that claims 1-14 are in condition for allowance. Accordingly, early allowance of the present application based on claims 1-14 is respectfully requested.

To the extent necessary, Applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C., Deposit Account No. 50-1417 (1213.43382X00).

Respectfully submitted,

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.



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